



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

FEB 27 2017

CERTIFIED MAIL

John Marchand
Facilities Manager
Highwood Cold Storage
6 Rockingham Road
Londonderry, NH 03053

**Re: Reporting Requirement Pursuant to the Clean Air Act
Response Required Within Thirty Days of Receipt**

Dear Mr. Marchand:

EPA is requesting documentation of the total amount of anhydrous ammonia contained within any refrigeration system at Highwood Cold Storage (the "Facility") because the Facility has reported, in the past, at least 9,000 pounds of anhydrous ammonia on its annual chemical inventory form, which is very close to the 10,000 pound threshold for application of the Agency's chemical accident prevention regulations found at 40 C.F.R. Part 68. EPA also wishes to confirm that the Facility has in place some minimum safety measures that are required to comply with Section 112(r)(1) of the Clean Air Act ("CAA"), 42 U.S.C. § 7412(r)(1). Section 114(a)(1) of the CAA, 42 U.S.C. § 7414(a)(1), gives EPA the authority to require a company to submit such information as EPA may reasonably require to determine its compliance with the CAA. Responses to the enclosed question(s) (Attachment 2) must be furnished **within thirty (30) days** of your receipt of this letter.

Compliance with this Reporting Requirement is mandatory. Failure to respond fully and truthfully, or to adequately justify any failure to respond, **within thirty (30) days of receipt of this letter** can result in an enforcement action by EPA pursuant to Section 113 of the CAA, 42 U.S.C. § 7413. This statute permits EPA to seek the imposition of penalties. This Reporting Requirement is not subject to Office of Management and Budget review under the Paperwork Reduction Act. Please be further advised that provision of false, fictitious, or fraudulent statements or representations may subject you to criminal penalties.

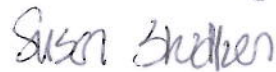
You may, if you desire, assert a business confidentiality claim covering part or all of the information requested, in the manner described by 40 C.F.R. § 2.203(b). You should read the above-cited regulations carefully before asserting a business confidentiality claim, since certain categories of information are not properly the subject of such a claim. If no such claim accompanies the information when it is received by EPA, the information may be made available to the public by EPA without further notice to you.

You are required to submit the above-referenced information in writing and by electronic mail to:

Heather Thompson
Office of Environmental Stewardship (Mail Code OES 04-4)
U. S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
thompson.heather@epa.gov

As part of your response, please complete the enclosed declaration (Attachment 1) and provide a cover letter answering the question(s) in Attachment 2. If you have any questions with regard to this Reporting Requirement, please contact Heather Thompson of my staff at (617) 918-1320.

Sincerely,

A handwritten signature in blue ink that reads "Susan Studlien".

Susan Studlien, Director
Office of Environmental Stewardship

Enclosures

ATTACHMENT 1

Instructions: Complete and Include With Your Response

DECLARATION

I declare under penalty of perjury that I am the

_____ of _____,
[Title] [Name of Facility]

that I am authorized to respond on behalf of

_____, and
[Name of Facility]

that the foregoing is a complete, true, and correct response.

Executed on _____
[Date]

[Signature]

[Type Name and Title]

ATTACHMENT 2
QUESTIONS/INFORMATION REQUESTED

- 1) EPA is requesting documentation of the total amount of anhydrous ammonia contained within each refrigeration system at the Highwood Cold Storage Facility located at 6 Rockingham Road, Londonderry, NH. To provide EPA with the requested information, please provide an explanation of the methodology used to make the inventory determination as well as a copy of calculations performed, ammonia charge records, or other documentation used to support the inventory amount.

For your information, there are three methods that are typically used to determine the inventory of anhydrous ammonia in a refrigeration system ("System"). Each method is briefly described below:

- a) Method 1: Document the ammonia charges to the System:
This method involves estimating the inventory by keeping documentation of all ammonia charges to the System since the original charge. This option is not recommended for systems that have undergone significant changes or ammonia losses.
- b) Method 2: Document inventory via System pump-down:
This option can be used when the System is shut down for maintenance, and the ammonia is either completely removed from the System or returned to one or more vessels in the system.
- c) Method 3: Engineering calculations of individual System components to estimate the amount of ammonia in the System: *This method involves performing inventory calculations on the components of the System that contain liquid-phase ammonia, such as pipes, receivers, condensers, surge drums, evaporators, oil coolers, etc.*

Various organizations offer on-line calculators or other resources to help determine inventory amounts, including, for example, the International Institute for Ammonia Refrigeration and the Industrial Refrigeration Consortium.

- 2) Please state whether each of the following bare minimum safety measures are in place for each refrigeration system. This is not intended to be a complete list of important safety measures, but rather a limited subset that will give EPA some sense of whether the system is designed and operated to prevent an ammonia release and minimize the effect of any release that could occur. For ease of responding, this question has been set up in a checklist format that you can just fill out.
- a) Understanding the Hazards Posed by the System
Hazard Addressed: Releases or safety deficiencies that stem from a failure to identify hazards in design/operation of system

- Facility has completed a process hazard analysis or review to identify the hazards posed by the System(s), following industry standards.¹ Also, provide the date of this hazard review. ☐ Yes Date _____ ☐ No
- For systems that employ hot gas defrost, the process hazard analysis/review includes an analysis of, and identifies, the engineering and administrative controls for the hazards associated with the potential of vapor propelled liquid slugs and condensation-induced hydraulic shock events. ☐ Yes ☐ No

b) Operating Activities:

Hazard Addressed: High risk of release from operating or maintenance activity

- System(s) has self-closing/quick closing valves on all oil pots. ☐ Yes ☐ No
- Facility has written procedures for System maintenance and operation activities. ☐ Yes ☐ No
- Only authorized persons have access to refrigeration machinery room and the ability to alter safety settings on equipment. ☐ Yes ☐ No
- Written procedures are in place for proper use and care of personal protective equipment. ☐ Yes ☐ No
- If respirators are used, facilities know the location of their respirators, and they are inspected and maintained per manufacturer or industry standards. ☐ Yes ☐ No

c) Maintenance/Mechanical Integrity:

Hazard Addressed: Leaks/releases from maintenance neglect

- A preventative maintenance program is in place to, among other things, detect and control corrosion, deteriorated vapor barriers, ice buildup, and pipe hammering, and to inspect integrity of equipment/pipe supports. ☐ Yes ☐ No
- All piping system openings except the relief header are plugged or capped, or valve is locked. ☐ Yes ☐ No
- Equipment, piping, and emergency shutdown valves are labeled for easy identification, and pressure vessels have legible, accessible nameplates. ☐ Yes ☐ No
- All atmospheric pressure relief valves have been replaced in the last five years with visible confirmation of accessible pressure relief valves. ☐ Yes ☐ No

d) Machinery Room

Hazard Addressed: Inability to isolate and properly vent releases

¹ The recommended industry practice and standard of care for ammonia refrigeration systems of this size would be to identify hazards using industry checklists, a What-if analysis, or a Hazard and Operability study. See e.g., the International Institute of Ammonia Refrigeration's ("IIAR's") *Ammonia Refrigeration Management Program* (2005), Section 10; EPA's *Guidance for Implementation of the General Duty Clause Clean Air Act Section 112(r)(1)*, available at <http://www.epa.gov/oem/docs/chem/gdcregionalguidance.pdf>; and IIAR Bulletin No. 110, *Start-up, Inspection and Maintenance of Ammonia Mechanical Refrigerating Systems* (1993, rev. 2002) Section 5.2.1 [The owner shall confirm that a Process Hazard Analysis has been completed and that recommendations have been resolved or implemented.]

- The System(s) has/have emergency shut-off and ventilation switches outside each machinery room. ☐ Yes ☐ No
- The machinery room(s) has/have functional, tested, ventilation. Air inlets are positioned to avoid recirculation of exhaust air and ensure sufficient inlet air to replace exhausted air. ☐ Yes ☐ No
- Documentation exists to show that pressure relief valves that have a common discharge header have adequately sized piping to prevent excessive backpressure on relief valves, or if built prior to 2000, have adequate diameter based on the sum of the relief valve cross-sectional areas. ☐ Yes ☐ No
- The facility has engineering controls in place to protect equipment and piping against overpressure due to hydrostatic expansion of trapped liquid refrigerant. Administrative controls are acceptable where hydrostatic overpressure can occur only during maintenance operations. ☐ Yes ☐ No
- Eyewash station(s) and safety shower(s) is/are present and functional. ☐ Yes ☐ No

e) Emergency Actions

Hazard Addressed: Inability to regain control and reduce release impact

- Emergency response communication has occurred or has been attempted with the Local Emergency Planning Committee and local responders. Provide the date of the last communication. ☐ Yes Date ____ ☐ No
- The facility has an Emergency Action Plan pursuant to 29 C.F.R. § 1910.38(a), an Emergency Response Plan pursuant to 29 C.F.R. § 1910.120(q) and 40 C.F.R. § 68.95, or an Integrated Contingency Plan pursuant to guidance in 61 Fed. Reg. 28642 (June 5, 1996). ☐ Yes ☐ No
- Critical shutoff valves are accessible, and a schematic is in place to show responders where to access them. ☐ Yes ☐ No
- EPCRA Tier II reporting is up to date. ☐ Yes ☐ No
- The facility has ammonia detectors and alarms to detect a release of ammonia. ☐ Yes ☐ No